

## **ABSTRACT OF THE DISCLOSURE**

An autonomic grid computing mechanism. In embodiments, peer-to-peer platform protocols may be integrated with a grid computing system. Embodiments may  
5 use peer-to-peer platform protocols as the transport for the grid computing system. Embodiments may provide one or more of, but not limited to, the following capabilities to grid computing systems: self-deployment and self-configuration, self-updating, self-healing, node removal, master node backup, monitoring, administration, load balancing, grid brokering, decentralized grid, and multi-grid support. Peer-to-peer platform  
10 protocols may be used to automatically configure compute nodes. When a node comes up, the node searches for a master node using the peer-to-peer platform. When the node finds a master node, it provides node information to the master node using the peer-to-peer platform. The master node may send the node grid configuration information using the peer-to-peer platform and the node may self-configure as a compute node.